

WHAT IS CLAIMED IS:

1. A system for minimizing the loss of information in cordless communications, comprising:

a first data station having control logic, the control logic operable to:

establish a plurality of individual communication channels needed to transmit information between the first data station and a second data station, each of the channels associated with a unique channel frequency, select a first unique channel frequency to be used for the first channel between the two data stations; determine parameters relating to a spectral separation between each of the channels; and select unique channel frequencies for the remainder of the plurality of channels in response to the determined parameters; and

response logic residing in the second data station, the response logic operable to receive the information from the first data station on the plurality of communication channels.

2. The system of Claim 1, wherein the channels are operable to both transmit and receive information in duplex.

3. The system of Claim 1, wherein the parameters comprise a frequency offset to be used between each unique channel frequency.

4. The system of Claim 1, wherein the parameters comprise optimal spectral spacing between each unique channel frequency used for the individual channels.

5. The system of Claim 1, wherein each channel frequency is changed using a frequency hopping scheme.

6. The system of Claim 1, wherein the control logic is further operable to:

a) model interference encountered over individual channels between the data stations; and

b) select parameters that minimize the loss of information over each of the individual channels.

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12. The method of Claim 7, further comprising changing the unique frequencies utilizing a frequency hopping scheme.

13. The method of Claim 12, wherein the selecting additional frequencies step comprises separating all of the frequencies at an optimal spectral separation.

14. The method of Claim 7, further comprising selecting all of the unique frequencies from a table.

15. A method for minimizing the loss of information in cordless communications, comprising:

a) providing at least two data stations having a plurality of communication channels to transmit information between the data stations;

b) determining a first unique carrier frequency for the first of the channels between the data stations;

c) determining parameters relating to a spectral separation required for the next one of the channels; and

d) repeating the process for another channel.

16. The method of Claim 15, wherein the determining parameters step comprises determining parameters to yield an optimal spectral separation.

17. The method of Claim 15, wherein the determining parameters step further comprises:

a) evaluating whether any signal source is interfering with the channel between the data stations on the first unique carrier frequency; and

b) selecting another carrier frequency for the channel.

18. The method of Claim 15, wherein the parameters represent an error rate measured over the channel.

19. The method of Claim 15, further comprising the data stations transmitting information that is time division multiplexed and time division duplexed over the communication channels.

20. The method of Claim 15, wherein steps (b)-(d) are performed at regular intervals of time.

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